



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

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Mr. Ken Tu
USDA Forest Service
Colorado Roadless Rule/EIS
P.O. Box 1919
Sacramento, CA 95812

Dear Mr. Tu:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4321, *et seq.*, and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609, the U.S. Environmental Protection Agency (EPA) has reviewed the U.S Forest Service's (USFS) Revised Draft Environmental Impact Statement (RDEIS) for the proposed Colorado Roadless Rule.

This RDEIS was prepared to disclose and analyze potential environmental impacts associated with four alternatives of a state-specific rule to manage roadless area values and characteristics on USFS lands in Colorado. The Preferred Alternative (Alternative 2 – Colorado Roadless Rule), encompasses 4.19 million acres using updated evaluations to identify Colorado Roadless Area (CRA) boundaries. Management provisions include additional exceptions for tree-cutting/sale/removal and temporary road construction/reconstruction; however, 562,200 acres are identified as CRA upper tier acres where road construction and tree-cutting activities would be tightly restricted. In addition, 20,000 CRA acres are identified as the North Fork coal mining area where temporary road construction/reconstruction exceptions would apply. This alternative includes additional provisions to consider in determining conditions for inclusion in approved Surface Use Plans of Operation for proposed oil and gas leasing in CRAs.

We commend the USFS for its cooperative effort with the State of Colorado to develop a rule that provides state-specific management direction for over four million acres of roadless area in Colorado while being responsive to public comments. With a few exceptions, the RDEIS provides thorough disclosure and analysis of impacts. As a result, our primary concerns and recommendations are as follows: inclusion of limited upper tier acreage, air quality, greenhouse gas emissions associated with future coal development, aquatic resources, and environmental justice.

The proposed Colorado Roadless Rule's "upper tier" concept would provide greater protection from impacts related to road construction/reconstruction and tree-cutting/sale/removal on upper tier acreage as compared to other CRA acres. Under the Preferred Alternative (Alternative 2 – Colorado Roadless Rule), 562,200 acres would be identified as CRA upper tier acres in six of the eight covered National Forests. Under Alternative 4 (Colorado Roadless Rule with Public Proposed Upper Tier Acres), 2,614,200 acres would be identified as upper tier acres, with all eight of the covered National Forests including some upper tier designation. The substantial additional upper tier acreage of Alternative 4 would provide greater protection of roadless characteristics and less opportunity for adverse impacts to air quality and aquatic resources. Therefore, we recommend expanding the Preferred Alternative to include additional upper tier acreage.

Numerous population centers and mandatory Class I Federal areas are located near proposed CRAs where potential air emissions may be of concern. While the RDEIS provides data regarding existing visibility trends for the mandatory Class I Federal areas of the region, the remainder of the analysis area includes only a qualitative discussion of ambient air quality. Given EPA's concerns regarding air quality, we recommend that the USFS provide additional baseline data of air quality conditions in the remainder of the analysis area.

The Preferred Alternative designates the North Fork coal mining area with 19,625 acres available for leasing (of which only 4,025 acres are currently leased) and potentially 360 million tons of recoverable coal. The RDEIS includes only a qualitative discussion of GHG emissions associated with development and use of these coal resources. To consider the range of impacts resulting from each alternative's potential GHG emissions and climate change impacts, we recommend the USFS quantify and disclose projected annual and total lifetime cumulative GHG emissions, including emissions from combustion of the mined coal, resulting from potential future coal development.

Most activities resulting from the various alternatives, including road construction/reconstruction, tree-cutting/sale/removal, linear construction zones (LCZ's), and ski resort expansion, have the potential to adversely impact aquatic resources, including wetlands, streams, riparian areas, and their supporting hydrology. We recommend the Final EIS (FEIS) include a thorough characterization of existing aquatic resources and baseline conditions; including quality, quantity and location of surface waters, wetlands, streams and ephemeral drainages, and the impacts each alternative would have on these baseline conditions.

While the RDEIS provides a substantial amount of data regarding Colorado demographics, there is limited discussion of potential impacts to environmental justice communities associated with the various alternatives. We recommend the FEIS include the process the USFS used to identify low income and minority communities as well as the potential direct, indirect and cumulative environmental impacts of roadless activities on these communities.

Based on our review, we have rated the RDEIS as "Environmental Concerns – Insufficient Information (EC-2)". As explained in this letter and the attached detailed comments, we have a number of concerns regarding potential impacts of the Preferred Alternative, as well as the level of analysis and information provided concerning those impacts. We look forward to continuing to work with you during the development of the FEIS to address these concerns. Please feel free to contact me at (202) 564-5400, or have your staff contact Jessica Trice, at (202) 564-6646, if you have any questions or would like to discuss our comments.

Sincerely,

A handwritten signature in blue ink that reads "Susan E. Bromm". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Susan Bromm
Director
Office of Federal Activities

Enclosure

**U.S Environmental Protection Agency
Detailed Comments – Colorado Roadless Rule RDEIS**

Air quality

The RDEIS acknowledges there are no portions of the proposed roadless areas designated as non-attainment for particulate matter and that all airsheds overlapping roadless areas in Colorado meet air quality standards. However, given EPA's concerns regarding air quality, we recommend the Final EIS (FEIS) include the following additional baseline data of air quality conditions in the remainder of the analysis area:

- Identification of sensitive receptors (such as population centers and Class I and Sensitive Class II areas in the vicinity), as well as lakes and streams sensitive to acid deposition effects;
- Airshed classifications and baseline conditions for all NAAQS at nearby population centers; and
- Disclosure of any regional concerns (e.g., PM₁₀, PM_{2.5} and ozone issues in the area).

Such data are readily available from the Colorado Department of Public Health and Environment (CDPHE) and/or the EPA AirExplorer web site (<http://www.epa.gov/airexplorer/>). Decision-makers will need to understand baseline conditions in an effort to ensure that future projects, when combined with air quality impacts from external sources, do not adversely impact the NAAQS.

Emissions Inventory: We are concerned that no emissions inventory is provided for predicted emissions that may result under the various alternatives. Tree-cutting/removal, prescribed fire, road construction/reconstruction, and coal mining activities affect air quality. The RDEIS notes that tree-cutting, sale or removal activities and fuel management activities in the analysis area would vary (increasingly more activities possible by Alternative 1, 4, 2, and 3, respectively) and would affect from 2,300 to 16,900 acres. It is unclear what percentage of these acreage estimates would include prescribed fire treatments. Since total mileage estimates for all activities do not appear to be included in the RDEIS, we recommend that estimated acreage or mileage for each potential activity and the associated emissions, by alternative, be provided in the FEIS.

Prescribed Fire: The RDEIS has a very limited discussion of prescribed fire except to acknowledge that it is often applied in conjunction with tree-cutting. The RDEIS should clarify whether additional tree-cutting and road construction will result in significantly more use of prescribed fire over increased acreage as stipulated in Alternatives 1, 4, 2, and 3, respectively.

Increased use of prescribed fire may cause degradation of air quality in the region. We appreciate that the RDEIS notes the USFS would consult with CDPHE through permitting processes prior to conducting prescribed burns. While we realize the individual burn plans would quantify expected emissions, we recommend that a best estimate of the prescribed fire acreage and potential emissions be disclosed in the FEIS. Such information is necessary to fully inform the public as well as the decision-maker to ensure protection of air quality if the prescribed burns are ultimately conducted.

We also recommend the FEIS provide more detail regarding: (1) requirements for the incorporation of the Interagency Prescribed Fire Planning and Implementation Procedures Guide (July 2008) into the site-specific burn plans designed for each prescribed burn conducted as a result of the various tree-cutting exceptions; (2) appropriate smoke monitoring techniques and mitigation (including meteorological conditions favorable for mitigating prescribed fire smoke and alternatives to prescribed

fire such as mechanical fuel reduction methods); and (3) how the public will be notified of pending burns.

Harvest-Related, Transportation-Related, and Dust-Related Emissions: Air quality in IRAs/CRA's also would be negatively impacted by emissions from heavy diesel equipment utilized for tree-cutting, idling trucks used for transportation of wood products, and dust generated from associated activities. EPA is concerned that the RDEIS does not contain an inventory of predicted emissions that would be associated with tree-cutting and associated activities that could potentially occur under each alternative. We recommend that the FEIS include such an emissions inventory.

Further, these emissions could be addressed through project-level design criteria and monitoring. Example measures that could be recommended through the state-specific rule include the following:

- Prohibit unnecessary idling of transportation trucks;
- Use low-sulfur or alternative fuels;
- Require heavy diesel equipment to use cleanest available engines or retrofits with diesel particulate control technology;
- Maintain engines;
- Require dust abatement measures and detailed plans for dust control;
- Require prompt revegetation of decommissioned roads and monitor for five years after revegetation to ensure success; and
- Monitor decommissioned roads for effectiveness of closure.

Indirect and Cumulative Impacts: Under Alternatives 2 and 4 (Colorado Roadless Rule), 1,710 acres included in IRAs were not included within CRA boundaries. The 2001 Roadless Rule did not offer the potential for expanded development of areas adjacent to permitted ski areas and allocated for ski area management in forest plans. The FEIS should clearly present the magnitude of air emissions that may result if IRA/CRA acreage would allow for ski resort residential/commercial expansion. These include associated indirect impacts to air quality resulting from onsite power sources, potential use of fireplaces and woodburning stoves, and increased traffic congestion are of particular interest. Potential mitigation measures, such as providing shuttle services and requiring gas fireplaces, may be of value to planning considerations at this early stage of the process.

We recommend that the FEIS include a discussion of likely vehicle miles traveled associated with projected increases in residential and visitor capacity, as well as the related mobile source emissions inventory. We recommend estimating mobile source emissions with EPA's MOVES2010a mobile sources emission model and re-entrained road dust emissions with use of EPA's Compilation of Air Pollutant Emission Factors (AP-42). If total emissions are substantial, then an air impact analysis presenting direct, indirect, and cumulative impacts on sensitive receptors is reasonable.

In addition, we suggest the FEIS present indirect impacts from use of harvested and/or thinned trees for fuel. For instance, if any of the harvested timber would be used as feedstock for supplying fuel at a facility that provides heat and/or power, or would be converted to wood pellets or biofuels, then we suggest a discussion of specific uses and related air quality impacts, including greenhouse gas (GHG) emissions. There may be mitigation options available to address these indirect emissions.

Additional Provisions Related to Oil and Gas Leasing: We are pleased that recent Instruction Memorandums on Oil and Gas Leasing will apply special provisions requiring environmental analyses for oil and gas leasing and in the approved Surface Use Plans of Operation. In addition, we recommend

the RDEIS acknowledge the recently signed June 23, 2011, U.S. Department of the Interior and U.S. EPA Memorandum of Understanding and its applicability to future oil and gas leasing projects in the CRA's¹.

GHG emissions

Currently, all existing coal leases in IRAs/CRA's are located in the Grand Mesa-Uncompahgre-Gunnison National Forest (GMUG). Potential for future coal development varies by alternative, and EPA's comments are directed at the differences in potential future development. Alternative 1 (2001 Roadless Rule) would effectively prohibit future leases due to prohibition of road construction; Alternatives 2 and 4 (Colorado Roadless Rule) would allow road construction for future leases in the 20,000 acre North Fork coal mining area of the GMUG; and Alternative 3 (No Action) would allow road construction for future leases in the entire analysis area. The potential acres of accessible coal resources vary greatly by alternative, resulting in a wide range of estimated accessible recoverable tons of coal in roadless areas. The RDEIS provides roadless area estimates for acres of accessible coal resources and tons of accessible recoverable coal resources, respectively, as follows:

- Alternative 1 – 5,900 acres available (all currently leased) with potentially 108 million tons of recoverable coal;
- Alternatives 2 and 4 (North Fork coal mining area) - 19,625 acres available (only 4,025 acres currently leased) with potentially 360 million tons of recoverable coal; and
- Alternative 3 – 36,900 acres available (only 5,900 acres currently leased) with potentially 675 million tons of recoverable coal.

The RDEIS includes only a qualitative discussion of GHG emissions associated with development and use of coal resources. In addition, it is unclear whether there is the potential for unmitigated methane emissions associated with future development in the North Fork coal mining area. To fully inform decision-makers and the public regarding the range of impacts resulting from each alternative's potential future coal development and associated GHG emissions and climate change impacts, we recommend analysis and disclosure of GHG emissions including:

1. Quantify and disclose in CO₂-equivalent terms the projected annual and total lifetime cumulative GHG emissions, including emissions from combustion of the mined coal, resulting from future coal development (see, <https://www.epa.gov/RDEE/energy-resources/calculator.html>).
2. Qualitatively discuss the link between GHGs and climate change, and the potential impacts of climate change. Estimating the level of GHG emissions from the potential future coal development associated with each of the alternatives can serve as a reasonable proxy for assessing potential climate change impacts, and provide decision makers and the public with useful information for a reasoned choice among alternatives.
3. Describe any relevant Regional, Tribal or State climate change plans or goals, as well as the extent to which USFS would reconcile, through mitigation or otherwise, its proposed action with such plans. For example, please consider the Colorado Climate Action Plan (<http://www.cdphe.state.co.us/climate/ClimateActionPlan.pdf>), the Western Climate Initiative (<http://www.westernclimateinitiative.org>), the Governor's Blue Ribbon Advisory Council on Climate Change 2007 Final Report (http://www.deq.utah.gov/BRAC_Climate/final_report.htm),

¹ The June 23, 2011 Memorandum of Understanding among the Department of Agriculture, Department of the Interior and the Environmental Protection Agency, "Regarding Air Quality Analyses and Mitigation for Federal Oil and Gas Decisions Through the National Environmental Policy Act".

and Utah's GHG reduction goals to reduce GHG emissions to 2005 levels by 2020 (http://www.deq.utah.gov/Climate_Change/GHG.goal.htm).

4. Analyze in detail the potential means to mitigate GHG emissions and disclose potential GHG reductions associated with sure measures. EPA recommends the Final Colorado Roadless Rule require implementation of reasonable mitigations measures that would reduce or eliminate project-related GHG emissions from future coal development. In addition, we recommend adding a summary discussion of ongoing and projected regional climate change impacts relevant to the action area based on U.S. Global Change Research Program assessments and that the FEIS identify any potential need to adapt the proposed action to these effects, as well as any potential impacts from the proposed action that may be exacerbated by climate change.

Aquatic resources

We are concerned that there would be 406 fewer miles of streams protected under CRAs versus IRAs. We appreciated the RDEIS discussion related to aquatic resources; however, we recommend that USFS expand the discussion by including the following in the FEIS:

- A thorough characterization of existing aquatic resources and baseline conditions, including quality, quantity and location of surface waters, wetlands, streams and ephemeral drainages.
- Disclosure of impacts on these baseline conditions, including effects of development associated with potential ski resort expansion, that would result from activities associated with each alternative. Such impacts may include changes in surface and groundwater hydrology.
- A map and summary of all wetlands types and acreage in the analysis area and estimated wetlands acreage that would be impacted by each alternative.
- A description of any wetlands impacts, temporary and permanent, direct and indirect, past and foreseeable. Such impacts may include functional conversion of wetlands (e.g., forested to shrub-scrub); changes to supporting wetland hydrology (e.g., snow melt patterns, sheet flow, and groundwater hydrology); and wetland disturbance from grading and dredge and fill activities.

Water Quality Data: Baseline water quality data are critical particularly given proximity to the headwaters of four important rivers - the Colorado, Platte, Arkansas, and Rio Grande. To provide a baseline for future monitoring of impacts, we recommend the FEIS provide the following:

- A summary of the best available monitoring data on water quality and stream health for the analysis area, including *Escherichia coli*, nutrient concentrations, water temperatures, and turbidity data, if they exist.
- Identification of any significant gaps in data that could affect the decision and/or that may be targeted for collection under future project monitoring plans.

Impaired Waterbodies: We appreciate the RDEIS discussion related to Clean Water Act (CWA) Section 303(d) impaired or threatened waterbody segments in the analysis area. We recommend that the FEIS describe how the alternatives and resulting development might affect these waterbodies, particularly the water quality parameters causing the CWA Section 303(d) listing. Proposed activities in the drainages of CWA impaired or threatened streams must be consistent with the State's Total Maximum Daily Load (TMDL) developed for the listed waterbody. We recommend that mitigation or restoration activities be included to reduce existing sources of pollution to offset or compensate for pollutants generated under the various alternatives. In addition, we recommend that Table 3-25 be expanded to provide specifics on the TMDLs and applicable impaired stream segments.

Wetlands: Impacts to types and functions of wetlands in mountain environments are difficult or impossible to mitigate due to shorter growing seasons and low night time temperatures. To ensure that wetlands are protected to the greatest extent possible, it may be necessary to use Best Management Practices (BMPs) to protect sensitive soils, wetlands, riparian areas, meadows, stream crossings, and critical habitat.

We recommend that the FEIS describe how the USFS will show compliance with Executive Order 11990, Protection of Wetlands, including how wetlands will be identified, avoided, or ultimately mitigated at the project-specific level. We recommend a thorough discussion of impacts to wetlands and riparian habitat that may result from ski area development that would result from removal of IRA/CRA designation for those relevant acres.

To ensure that wetlands are protected to the greatest extent possible, it may be necessary to consider exclusion of tree-cutting, road construction, and LCZs in areas where wetlands would be adversely impacted. We support establishment of riparian habitat buffer zones to avoid adverse impacts to streams and riparian areas. Avoidance of tree-cutting, road construction, and LCZs in riparian areas may be necessary, as well as special protections for high quality wetland resources such as fens on the GMUG and San Juan National Forests, where these unique features are more common.

Wastewater Associated with Energy Development: We appreciate the RDEIS discussion of potential wastewater discharges associated with oil and gas operations, and recommend inclusion of similar information related to coal preparation plants. In addition, while we realize that the project-level NEPA analyses for the existing oil, gas, and coal leases most likely addressed specific details of wastewater discharges and waste rock storage, we recommend the roadless rule RDEIS discussion include a summary to better disclose baseline conditions. Such a summary might include the following:

- Estimate of water quantity used and its source;
- Percentage of wastewater disposed by surface discharge versus underground injection;
- Use of other possible disposal methods such as evaporation ponds;
- Location of waste rock piles and disposal procedures; and
- Identification of BMPs to prevent surface water and groundwater contamination.

Design Criteria and Mitigation: We support the list of design criteria for temporary road construction under Alternatives 2 and 4. We recommend expanding this list to address other potential concerns with temporary roads as well as potential concerns related to tree-cutting/fuels treatments, as follows:

- Require revegetation of all disturbed areas with native seed mix within the same growing season they are disturbed, and monitor revegetation efforts for five years to ensure success.
- Specify steps to protect range improvements (e.g., fences, water developments) from mechanical equipment used for tree-cutting/removal and prescribed burning.
- Monitor breakdown of hydrophobic soils for five years following prescribed burns.
- Develop a monitoring plan and schedule to assess the effectiveness of road decommissioning.

In addition, the use of LCZs for water conveyance systems, electrical and telecommunication transmission lines, and oil and gas pipeline varies depending on the alternative. It may be appropriate to identify requirements for project-level analyses, including disclosure of the following:

- Location and amount of disturbance proposed in wetlands (if applicable);
- Amount of wetland soil compaction expected from installation equipment;

- Location on which soil from trenching would be temporarily stored;
- Type and diameter of pipe to be installed;
- Width and depth of the necessary trenches, including locations of cutoff collars to prevent drainage along the pipes; and
- Identification of trench fill material that would be used to promote drainage (e.g., gravel).

If avoidance of wetland and riparian areas is not possible, we recommend identification of mitigation measures that would minimize the extent of wetlands impacts from these activities. Such measures include the following:

- Re-vegetate with removed shrubs and mats of herbaceous cover (carefully stockpiled on-site) and appropriate native wetland seed species as soon as possible after the disturbance. Monitor for five years to ensure successful re-vegetation of impacted montane wetland communities.
- Use bulkheads/box structures to minimize disturbance area from side casting and trench width.
- Use fabric or hay layers to protect existing vegetation from stockpiled dredged material and to mark existing contours.

Indirect and Cumulative Impacts of Potential Ski Area Expansions: EPA recommends the FEIS include information regarding the impacts from potential ski area development/expansion on ski area acres excluded from CRA boundaries. It appears that such development could substantially increase ski season and non-ski season use of the ski areas and surrounding forests. We recommend a discussion of the potential new residential and lodging units and foreseeable road and parking lot construction. In addition, we recommend inclusion of indirect impacts such as hydrologic changes and water quality impacts from erosion and contaminants caused by runoff from increased impervious surface area.

Planned and potential developments may result in the following indirect impacts to aquatic resources:

- Wetlands and riparian area impacts from up-gradient or adjacent development, grading, roads, ski terrain expansion, potential ski area facility improvements, increased year-round visitation, increased demand for hiking/biking trails and picnic facilities, and changes to hydrology;
- Water quality impacts from wastewater disposal, sediment and lawn chemicals; and
- Water quantity impacts from domestic and commercial water use, changes in stormwater runoff from new impervious surfaces, and down-cutting of streams.

We recommend discussion of how these impacts would be mitigated to protect forest resources and how implementation of such measures would be ensured at the project level.

Environmental justice

To ensure a robust analysis, we encourage the USFS to consult the Council on Environmental Quality's new posting of resources on NEPA and environmental justice at http://ceq.hss.doe.gov/nepa_information/agency_resources.html.

There may be water quality and/or air quality impacts of particular concern to local residents; therefore, EPA recommends the following:

- Disclosure of whether and where environmental justice communities are located in the analysis area, including a description of the methodology and criteria utilized to identify low income and

minority communities, the sources of data used for these analyses, and references for establishing the criteria.

- To the extent such communities are identified, a discussion of the potential direct, indirect and cumulative environmental impacts of roadless activities on these communities.
- An evaluation of the socio-economic impacts to the local communities, including any additional loading that would be placed on local communities' abilities to provide necessary public services and amenities associated with development resulting from changes in roadless area boundaries, the various exceptions to road construction and tree-cutting activities, and/or future coal mining development and ski area expansion. Such impacts may include better or worse access for subsistence hunting and gathering of fuel wood; increased housing development to meet the needs of project workers and families; burdening water, waste and wastewater handling facilities; and increased road traffic with associated dust and hazardous material spill potential. We recommend that methods to avoid or minimize such impacts be discussed in the FEIS.